REMARKS

The indication that claims 7, 11, 13 - 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, is acknowledged. However, such claims have been retained in dependent form at this time.

By the present amendment, the title has been amended in a manner similar to that suggested by the Examiner such that the objection to the title should now be overcome, and independent claims 1 - 3 and 8 - 9 have been amended to clarify the feature of the magnetic head or recording means as including a magnetic head having a recording magnetic pole and an excitation coil for producing a magnetic field for exciting the recording magnetic pole so as to record information on the recording medium. That is, as described in the paragraph bridging pages 5 and 6 of the specification, the magnetic head 121 includes an excitation coil and magnetic poles as recording elements and they induce a recording magnetic field based on a recording current wave form sent from a head amplifier 142, whereby magnetic disc 11 is recorded. Furthermore, as described in the first full paragraph at page 8 of the specification, generated dummy data is sent to head amplifier 142 which opens the write gate in accordance with the timing information delivered from the R/W channel in order to cause a recording current wave form to flow in the excitation coil formed in the magnetic head 121, and as a result, a recording magnetic field develops in the recording magnetic poles. Applicants note that each of independent claims 1 - 3 recited the feature of a magnetic head including an excitation coil, and now recites the feature of a recording magnetic pole in addition to the excitation coil operating in

the manner defined with independent claims 8 and 9 being amended to utilize similar language.

In accordance with the present invention, a magnetic recording apparatus utilizes a magnetic head including a recording magnetic pole and an excitation coil for producing a magnetic field for exciting and recording the magnetic pole so as to record information on a magnetic recording medium and is operated so as to enable reduction of error due to writing or recording errors during recording at low temperatures. That is, as indicated in the Summary Of The Invention, at page 3 of the specification, an object of the invention is to provide a magnetic recording apparatus in which the deterioration in recording performance after the start of recording due to the contraction of the head element in low atmospheric temperatures can be prevented, so that stable recording performance can be ensured irrespective of the atmospheric temperatures. Applicants submit that the independent and dependent claims of this application recite features not disclosed or taught in the cited art, as will become apparent from the following discussion.

The rejection of claims 1 - 6, 8 - 10 and 12 under 35 USC 102(e) as being anticipated by Ling et al (USPN 6,574,061) is traversed insofar as it is applicable to the present claims and reconsideration and withdrawal of the rejection is respectfully requested.

As to the requirements to support a rejection under 35 USC 102, reference is made to the decision of In re Robertson, 49 USPQ 2d 1949 (Fed. Cir. 1999), wherein the court pointed out that anticipation under 35 U.S.C. §102 requires that each and every element as set forth in the claim is found, either expressly or inherently described in a single prior art reference. As noted by the court, if the prior art reference does not expressly set forth a particular element of the claim, that

reference still may anticipate if the element is "inherent" in its disclosure. To establish inherency, the extrinsic evidence "must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." Moreover, the court pointed out that inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.

In applying Ling et al to the claimed invention, the Examiner contends that this patent discloses "a magnetic head including an excitation coil (see column 3, lines 67 and Figure 3; the head 110 including an excitation coil 10") (emphasis added). Further, the Examiner contends that "the head amplifier, upon reception of the recording data, causes an electric current to flow in the excitation coil prior to the start of recording of the data using the magnetic head, (see column 4, lines 1 - 23)" (emphasis added). Applicants submit that the Examiner has mischaracterized the disclosure of Ling et al in relation to the claimed invention.

More particularly, applicants submit that Ling et al is directed to a "magnetoresistive read head" (see abstract) and in the "Summary Of The Invention" describes a method of run-time temperature compensating bias current to a "magnetoresistive read head" of a disc drive as well as a "magnetoresistive read head responsive to stored data to supply analog lead signals representing the stored data" as well as other features. Applicants submit that substantially the entire disclosure of Ling et al and the independent and dependent claims thereof are directed to the feature of a magnetoresistive read head and operation for reading data which has been recorded on a recording medium. Although the Examiner refers to head 110 of Ling et al as including an excitation coil 10, apparently in Fig. 3 of this

patent, it is noted that the disclosure of Ling et al refers to head-sliders 110 as well as head 110. However, column 4, lines 3 - 6 of Ling et al provides:

> As the resistance of head 110 changes due to data read from respective tracks 200, 202 of disc 106 (fig. 4) and analog signal is generated in preamplifier 300 representative of the read data.

Applicants submit that the disclosure of Ling et al does not identify reference numeral 10 as shown in Fig. 3, applicants submit that reference numeral 10 appears to represent a magnetoresistive element, shown schematically as a variable resistor, indicative of the resistance of head 110 changing due to data read from respective tracks. Thus, applicants submit that not only is Ling et al not directed to a magnetic recording apparatus, but also Ling et al, in the sense of 35 USC 102 or 35 USC 103, fails to disclose or teach a magnetic head including a recording magnetic pole and an excitation coil, as recited in each of the independent claims of this application, as well as the feature of producing a magnetic field for exciting the recording magnetic pole so as to record information on the magnetic recording medium. As such, applicants submit that each of independent claims 1 - 3, 8 and 9, as amended and therewith the dependent claims patentably distinguish over Ling et al in the sense of 35 USC 102 (see In re Robertson, supra), and 35 USC 103 and should be considered allowable thereover.

With regard to the other features of the independent and dependent claims of this application, applicants submit that there is no disclosure or teaching in Ling et al of the other structural features and operational features as recited in the independent and dependent claims of this application. Thus, looking to claim 1 for example, irrespective of the contentions by the Examiner, applicants submit that Ling et al does not disclose a head amplifier which, upon reception of recording data, causes an electric current to flow in the excitation coil prior to the start of recording of the

data using the magnetic head. Applicants submit that the other features of independent claims 2, 3, 8 and 9 and therewith the dependent claims are also not disclosed or taught by Ling et al, such that all claims patentably distinguish thereover and should be considered allowable at this time.

In view of the above amendments and remarks, applicants submit that all claims present in this application patentably distinguish over Ling et al and should be considered allowable. Accordingly, issuance of an action of favorable nature is courteously solicited.

To the extent necessary, applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in the fees due in connection with the filing of this paper, including extension of time fees, to the deposit account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (Case: 1021.43087X00), and please credit any excess fees to such deposit account.

Respectfully submitted,

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